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MINUTES OF THE THIRD MEETING OF THE NUCLEAR INDUSTRY COUNCIL

Summary of actions

	Who	Action
1	Delivery & Monitoring Group (DMG)	The Delivery & Monitoring Group to reconvene in order to further refine the measures set out in the Annexes to the paper, and provide a revised version for the next NIC in April.
2	All NIC members	NIC members invited to submit to the Secretariat any further comments they had on the Annexes to the Delivery and Monitoring paper, particularly Annex 2 and the proposed reporting template.
3	Business Capability Workstream	Development of a Demand Model for the UK Nuclear Industry to inform companies as they prepare to bid for work on new build and decommissioning projects.
4	DMG & Public Understanding Workstream	Explore whether the NIC should develop an agreed, consistent approach to communications

Attendees

See Annex A

Item 1: Opening remarks

Michael Fallon welcomed members to the third meeting of the Nuclear Industry Council. The propitious timing was emphasised, following on from the announcement on the agreement of the strike price for Hinkley Point C on 21 October 2013. It is important to build on that, and look forward to a programme of new nuclear power stations being built in the UK, delivering real economic benefit and jobs. The Chairman also emphasised the importance of capitalising on opportunities in other parts of the nuclear industry – waste management, decommissioning, operations and maintenance, and fuel cycle services.

Each of the workstreams can make a significant contribution to achieving that. Central to ensuring UK businesses enhance their capabilities to win contracts is the Business Capability workstream. The Chairman looked forward to hearing progress on that, as well as the other workstreams on Trade & Investment, Skills, Cost Reduction and Public Understanding of Nuclear Energy.

The Chairman explained that he attended the first part of the day-long workshop organised by the Delivery & Monitoring group to consider NIC's vision, strap line, critical success factors and key performance indicators. The workshop was kindly hosted by Rolls-Royce

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and expertly run by CH2M HILL under Adrian Worker's chairmanship. Delivery and Monitoring is an important part of NIC's work, particularly in order to gauge how effective its activities are in delivering significant UK economic benefit from the nuclear industry.

The Chairman invited Edward Davey to add his own remarks, followed by Lord Hutton and Vincent de Rivaz.

Edward Davey joined with the Chairman in welcoming the agreement on Hinkley. The UK government's recent high profile visit to China included meetings with the three main Chinese nuclear companies and senior government figures, underlining the level of overseas interest in the UK market, especially in the wake of the Hinkley decision.

There is further work to be done to achieve State Aid clearance, and the Government is working with a group of like-minded Member States to that end. This issue is of relevance to the entire new build programme, not just Hinkley Point C.

Changes in senior management at DECC were reported, with Mark Higson stepping down as Chief Executive of the Office of Nuclear Development. Sincere thanks were given for all the work carried out by Mark Higson, culminating in the decision on Hinkley Point C. Hergen Haye will be taking over the role of Director for the Office for Nuclear Development ensuring the continuity of senior management.

Lord Hutton echoed the significance of the decision on Hinkley Point C, which is a decisive moment in the development of the UK's Nuclear Industry. The work of the NIA's Programme Management Board on business readiness is important here, and is making good progress – this momentum needs to be maintained. Other new build projects in the UK are equally important, so the work now in train has a broader applicability.

Vincent de Rivaz expressed his thanks to the government, especially DECC, for the work undertaken to enable the Hinkley project to proceed. Cross-party support underpins the attractiveness of the UK for investment in nuclear energy and it is now time to engage with the UK supply chain and ensure it has the capability and capacity for the new build programme. The importance of addressing costs was stressed, and it was suggested that the issue will benefit from a 'series effect' of successive new builds achieving greater economies of scale.

Item 2: Delivery and Monitoring: Delivering the vision for NIC

In introducing this item, the Chairman acknowledged the intensive effort that went into identifying the vision, success factors and commitments of the NIC, and thanked Adrian Worker for leading this work. It will be for each workstream to reflect on the proposals and adapt them to suit their particular themes.

Adrian Worker asked the Council to agree on the DMG's proposals for the purpose and strapline of the NIC. The critical success factors, key performance indicators, and the reporting template for monitoring the workstreams' progress require further development. The proposed progress report format is intended to apply to all workstreams, and was designed to enable straightforward feedback to be given to the NIC. It is recommended that

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the Delivery & Monitoring group become a cross-cutting executive working group, with a more proactive role than was initially envisaged to enable it to assess and drive forward progress.

In discussion, the following points were made:

- The proposals are important for NIC as a means of measuring success, and should be taken forward as the basis for NIC to monitor and deliver the commitments in the Nuclear Industrial Strategy and the Nuclear Supply Chain Action Plan.
- The measures used should be kept simple and few in number, with a focus on the strategic, to reflect the role of NIC.
- It is important to ensure that the proposals, especially the success factors, include other parts of the nuclear industry, including waste management and decommissioning, the domestic market as well as global markets.
- In considering global markets, one of the measures that might be taken into account are the earnings by UK-based companies from overseas contracts.
- It would be useful to have more detail on the extent of company involvement in nuclear markets in order to calculate how much economic value the industry added to the UK.

Action 1 The Delivery & Monitoring Group will reconvene to further refine the measures set out in the Annexes to the paper, and will provide a revised version for the next NIC in April.

Action 2 NIC members were invited to submit to the Secretariat any further comments on the Annexes to the DMG paper, particularly Annex 2 and the proposed reporting template.

Item 3: Business Capability – Supply Chain Readiness

The Chairman acknowledged the significance of the Business Capability workstream in the light of the Hinkley announcement, and the need for this work now to gather pace. Business capability has relevance for all parts of the nuclear supply chain as it is essentially about enhancing capability and capacity of businesses across the board in the industry. The Chairman invited workstream lead Jason Smith to introduce the paper on Business Capability.

The workstream is building on existing business readiness work led by the NIA, reporting to the Programme Management Board (PMB) and chaired by Lord Hutton. It covers design and engineering, civil engineering and construction, products and equipment supply, and installation and commissioning. The workstream is also looking at two horizontal themes, quality and skills, both of which are recognised as vital areas for improving UK business competitiveness. Good progress is being made, with a number of companies contributing to

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the work, but that will need to accelerate. The industry will need to decide on near term, measurable key performance indicators. This workstream requires an effective dialogue with developers to ensure that the activities undertaken meet their needs as clients.

The key challenges that lie ahead are:

- Tier 2 and 3 companies have the potential to play a key role in achieving economic value in the nuclear supply chain. For that to happen, **(a)** they need a climate in which they have the confidence to invest; and **(b)** interventions must be targeted effectively in order to bring them up to the required standard.
- There is a 12 month window of opportunity for Hinkley, which leaves a tight timeline for companies to get to a position where they are able to compete for work.
- Beyond that 12 month period, the product mix and technology choices need to be looked at to determine where the UK can secure greatest economic value.
- It is vital to continue the dialogue with developers about capability and the work of the PMB. Looking ahead, this work will need to become more specific, and the PMB will seek to do that.

The following points were made in discussion:

- Good progress is being made on construction at Hinkley, with Laing O'Rourke involved in that work. The manufacture of equipment is seen as a real issue, with a need for the UK to improve its capability.
- SMEs face a step change if they are to get more involved in the supply chain. In some industries, mutual self-help partnerships have been formed to enable a share of knowledge and best practice among SMEs. This could enable them to address specific supply problems.
- There was a sense that greater targeting of interventions is necessary, and the work so far was at a general, generic level.
- Unlike some other sectors, the nuclear industry currently lacks a demand model of what products and services are required and by when. The NIC may have a role in assisting with this.
- The NIA Programme Management Board (PMB) has a key role in this area. Quality is important, and so too is competitiveness. There are some products and technologies that the UK may not be able to supply, which makes it all the more important to focus on UK businesses being competitive in those areas where they can supply.
- For companies to invest, they need information about the opportunities that are available. That requires the energy developers to be clear about any gaps in the supply chain, and what they require in terms of quality and price. Suppliers need to

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be aware of opportunities in good time, and have that set out clearly. Developers should not hold back about this – greater transparency is required now.

- The Nuclear Advanced Manufacturing Research Centre (Nuclear AMRC) has a good relationship with the developers and is working to understand supply chain needs and tackling barriers. Similarly, Nuclear AMRC is working well with Nuclear Decommissioning Authority (NDA), which is spending £1.5-1.6bn on supply chains. However, it is important to be more specific about supply chain opportunities, and to move quickly to fulfil them. The Nuclear AMRC can use its out-reach capability to the Small-Medium Enterprise (SME) community and help them join together, offering its considerable technical capability where necessary.

Item 4: Trade and Investment

The Chairman invited workstream lead Clive White from AMEC to introduce the paper on Trade & Investment.

The previous NIC discussion recommended that the balance of the work between inward investment and overseas trade be reviewed to ensure each is given their due weight in terms of opportunities for the UK. This has now been done, and is reflected in the paper. The paper covered the workstream's proposals for:

1. Securing the inward investment needed to assure key nuclear programmes
2. The ten key export markets the industry should target
3. A high level 'elevator pitch'.

All of this work is linked to the Business Capability workstream, as it is about promoting opportunities in the UK in partnership with competitive UK-based companies. Working with UKTI, the Trade & Investment workstream has identified priorities for inward investment and trade, in each case seeking to identify specific countries and parts of the supply chain that offer the best opportunities for commercial partnerships.

The main points made in discussion were:

- It will be important to make use of the UK's high reputation in skills and education, including research, as part of the UK plc. package.
- The work that is underway with like-minded Member States on the Hinkley State Aid discussions could be useful in obtaining insight into how those governments view investment and trade opportunities.

Item 5: Skills

The Chairman invited Roger Hardy to introduce the paper on Skills.

Progress with the work on skills is informed by the objective of attracting the right number of quality people to the industry, and retaining and re-deploying them effectively. There are a

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lot of bodies involved in skills, and the workstream is seeking to build on those existing bodies and avoid re-creating or duplicating them. The National Skills Academy for Nuclear (NSAN) and the Nuclear Energy Skills Alliance (NESA) are the key bodies, and have excellent industry representation involved in their work.

The Nuclear Energy Skills Alliance held a workshop in October 2013, which provided an opportunity for all interested organisations to confirm the direction of travel. It is important to ensure that the industry is able to re-deploy people to the areas of growth and retain skilled people at all levels in competition with other sectors. The UK will also need to learn from other countries' experience of nuclear, including new build, where EDF have a lot of practical knowledge to pass on. This reflects the global nature of the industry.

It is also necessary to delve down further into the supply chain to achieve greater granularity about areas for improvement. As with other workstreams, there is now a need to be more specific about what NIC needs to support and exactly how that should be done. One suggested theme for industry to reflect on is engineering skills, the subject of Professor John Perkins's recent report.

To help consolidate and develop the work on improving skills across all parts of the nuclear industry, the skills bodies, principally NSAN/NESA, working with industry and led by Magnox, have submitted an application to the UK Commission on Employment and Skills for an 'industrial partnership'. The idea behind the proposal is to ensure a direct industry-led articulation of skills needs which skills bodies would deliver. NIC will sit on top of the proposed structure to provide a strategic and authoritative steer to the work of the nuclear industrial partnership, should it succeed in securing funding through the assessment process currently underway.

Among the points made in response to this were the following:

- There is agreement and support for the industrial partnership proposal.
- NIC members agreed that it is important to reach down supply chains to understand the skill shortages of SMEs.
- It would be helpful to have more information about what employers are planning with regards to skills in order to get an overall picture of the situation. Better data, and greater specificity, on what skills employers will require over the next 12-24 months is needed to give SMEs the confidence to invest in the right training now.
- Leadership skills, especially for line management, are essential because it was at that level that a real, practical impact could be made on delivering quality products and services.
- Apprenticeships are key. Around 80 apprenticeships are being supported at Hinkley, focussed on learning technical skills. Where apprenticeships are on offer, proper supervision by skilled operatives is vital, especially to hand on experience and drive motivation. The EDF apprenticeship/supervision ratio was praised, reflecting the positive relationship between the company and trade unions. Getting more

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apprenticeships is a challenge at lower tiers, yet they have a role in helping to train the next generation of operatives.

- It is important that colleges and industry work together to ensure alignment of demand and supply on skills, and that the industry seeks greater diversity. This general point also features in Professor's Perkins's report on engineering.
- A tiered approach to training is needed: some companies carry out a lot of training in-house, others less so.
- SMEs are not engaged in strategic discussions on skills, and effort should be made to target them.
- The skills infrastructure is also important, e.g., computational facilities, test loops, links to university labs. The absence of previous national industry businesses (e.g., BNFL) who supported that in the past mean that it is important to forge cross-industry cooperation to ensure the skills infrastructure achieve the scope and standard of the past.
- Volume as well as scarcity of certain skills needs to be reflected in the debate.

Item 6: Cost Reduction

The Chairman noted that the industry looked at costs all the time, and that the regulatory regime made some contribution to costs. This is a challenge, and it is important that the industry is seen to be addressing it. He invited workstream lead Peter Greenhalgh to update NIC on the work on cost reduction.

The workstream's first priority is to identify its key initial tasks, as there are many that fall under the cost reduction heading and it would be difficult to address them all simultaneously. This is more a matter of sequencing than prioritising, as the themes are all important. The following main points were covered:

- **Waste & Decommissioning:** this is an issue that industry has to tackle in the near term as it relates to front end costs and planning decisions.
- **Design and Construction:** there is interest in comparison with other industries, e.g. commodity chemicals, which are also advanced technically, and throw up issues about the cost-base.
- **Productivity:** this includes productivity in situ, and effective use of IT and Building Information Methodology (BIM). BIM is a key innovation which needs to be extended to engage the supply chain, especially SMEs, many of whom are not yet positioned to utilise it. There is also a risk of over-engineering products; the key point is that they should be of quality and fit for purpose and chosen on their performance characteristics, not sophistication for the sake of it.
- **Regulation and Approvals:** one of the issues here is the difference between perception and reality, which will need to be investigated further.

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- Skills: good links are being maintained with NSAN to better understand the labour market. The demand for waste management and decommissioning skills should be looked at alongside new build skills.
- Finance: the workstream currently lack expertise in this area, so they will be seeking to address this. The focus will be on SMEs rather than project financing – for example how equipment is financed in the industry.

In discussion, the following points were made:

- Speed translates into costs, so completing projects more rapidly is key.
- Standardisation is also important. This relates to the 'nth' of a kind, as well as modular and pre-fabrication methods of manufacturing.
- The paper was welcomed as comprehensive in identifying the main themes, but it will be necessary to be more specific about cost drivers and how to address them.
- There is uncertainty about what products and services should actually cost in the first place, or how costs could be allocated along supply chains to SMEs.

Item 7: Public Understanding of Nuclear Energy

The Chairman said that the image or perception of nuclear energy cut across all the workstreams, and invited workstream lead Professor Andrew Sherry to provide progress. The initial focus of the workstream is to formulate a communications strategy that addresses current misconceptions about the risk associated with nuclear energy.

Professor Sherry provided an update on recent media coverage of the nuclear industry and described several examples of misconceptions that were being reported, to illustrate the importance of how the media impact on public understanding. A recent workstream survey of administrative staff at Imperial College, although very small, usefully illustrated some of the misconceptions about nuclear energy, and radiation in particular. The work to date has identified that there are a range of different audiences and different means of engaging with them. The communications strategy will be developed to reflect that.

The main points from the discussion were:

- Recent increases in energy bills have become a major issue. Although nuclear energy contributes to generating low carbon electricity, many consumers' current concerns are about energy bills rather than climate change.
- There was also a sense of a generational change in attitude to nuclear energy, with contemporary views generally more favourable than in the past, although the persistent gender difference (women being much less supportive) was noted.
- A lot of work/research has been conducted on this theme, and it is good that the workstream was taking that into account.

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- It was suggested the workstream discuss whether its scope should be extended to communicating the NIC's work to the wider nuclear industry.
- NIC may wish to consider more generally whether it wants to develop an agreed, consistent approach to communications. This forms part of the work of the Delivery & Monitoring group, so can be discussed further in that context, linking up with Professor Sherry's group.
- Any communications about the nuclear industry must be open and transparent if it is to be credible with the public.

Item 8: AOB

There were no other items for discussion, so the Chairman brought the meeting to an end. The progress being made was remarked on and the level of industry commitment welcomed. That said the NIC is at the beginning of a long process to deliver the Nuclear Industrial Strategy, and the economic benefits stemming from it. The work of the NIC will continue to be supported by government.

The date of the next NIC is confirmed as Wednesday 2nd April 2014, 14:00 – 16:00.

NIC Secretariat

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Annex A – List of Attendees

Rt Hon Michael Fallon MP (Chair)	Professor Mamdouh Elshanawany, Lloyd's Register
Rt Hon Edward Davey MP	Peter Greenhalgh, M&W Group
Lord Hutton of Furness, NIA	John Clarke, NDA
Martin Donnelly, BIS Perm Sec	Keith Parker, NIA
Clive White, Amec	Professor Paul Howarth, NNL
Robert Davies, Areva	Mike Hawe, NES Ltd
Martin Grant, Atkins	Mike Clancy, Prospect
Roger Hardy, Cavendish Nuclear	Bernard McAuley, UNITE
Greg Ashley, Bechtel	Jo Tipa, NSAN/NESA
Adrian Worker, CH2M Hill	Robert Zadora, NuGen
Professor Andrew Sherry, Dalton Institute	Jason Smith, Rolls-Royce
Douglas McQueen, Doosan Power Systems	Andy Storer, Rolls-Royce
Vincent de Rivaz, EDF	George Beveridge, Sellafield Ltd
Humphrey Cadoux-Hudson, EDF	Kevin Coyne, Unite
Olivier Carret, NuGen	Helmut Engelbrecht, Urenco
Sir Stephen Gomersall, Hitachi	Sandy Rupprecht, Westinghouse
Alan Raymant, Horizon	Mike Tynan, NAMRC
Adam Middleton, Laing O'Rourke	

Observers

Andy Hall, Office for Nuclear Regulation
Andy Mayall, Environment Agency
Allison Wall, Research Councils
John Idris Jones, Welsh Government
Andy Stevens, MOD

Officials

Janice Munday, BIS
Chris Pook, BIS
Mark Higson, DECC
Hergen Haye, DECC